Round numbers to powers of 10 and 1 significant figure

1

70   80   90   100   110   120   130
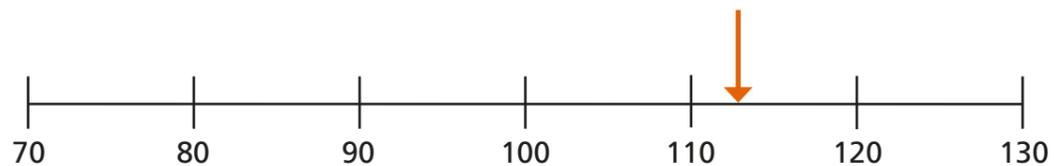
a) Estimate the number the arrow is pointing to. ☐

b) What is the number in part a), rounded to the nearest 10?

Circle your answer.

  100   110   120

c) Draw and label arrows to estimate the positions of these numbers on the number line.

  88   108   102   125

d) Complete the sentences.

88 rounded to the nearest 10 is ☐

108 rounded to the nearest 10 is ☐

102 rounded to the nearest 10 is ☐

125 rounded to the nearest 10 is ☐

e) Between which two multiples of 10 does the number 342 lie?

Circle your answer.

  300 and 400   330 and 340   340 and 350

f) What is 342 rounded to the nearest 10? ☐

2 Dora is rounding 18,735 to the nearest 100
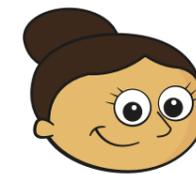
> I need to work out which multiples of 100 the number lies between. I will draw a number line.
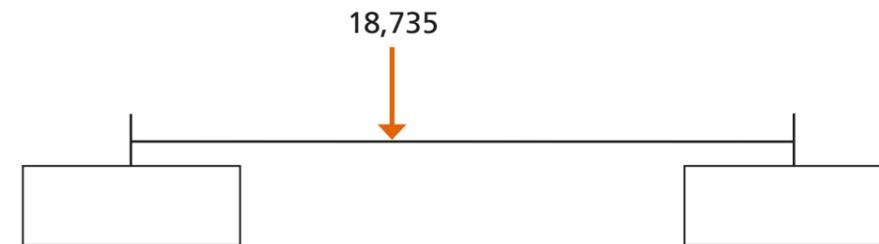
18,735

a) Label the two multiples of 100 that 18,735 lies between.

b) Round 18,735 to the nearest 100 ☐

Round 18,735 to the nearest 1,000 ☐

Round 18,735 to the nearest 10 ☐

3 Complete the sentences.

a) 8,888 rounded to the nearest 100 is ☐

b) 64,930 rounded to the nearest 10,000 is ☐

c) 174.7 rounded to the nearest 10 is ☐

d) 13,851 rounded to the nearest 100 is ☐

e) 256 rounded to the nearest 10 is ☐

f) 25,982 rounded to the nearest 100 is ☐

g) 1,000,388 rounded to the nearest 10 is ☐

4 **a)** Circle the **first** significant figure of each number.

    3.2726   32,726   32.726   0.32726   0.0003276

    b) What is 32.726 rounded to 1 significant figure?

    Circle your answer.

    30   32   32.7   33   40

    c) What is 7,499 rounded to 1 significant figure?

    Circle your answer.

    7,000   7,400   7,500   8,000   10,000

    d) What is 962,000 rounded to 1 significant figure?

    Circle your answer.

    900,000   960,000   962,000   970,000   1,000,000

5 Huan is writing about significant figures.

> 1,762 rounded to 1 significant figure is 2,000
>
> This means that rounding to 1 significant figure is the same as rounding to the nearest thousand.

Explain Huan's mistake.

_____

_____

6 Round the numbers to 1 significant figure.

    6.47   64.7   647   647,000

7
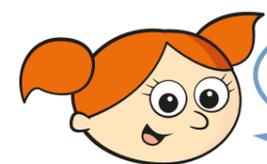
> 0.00314 is 0 to 1 significant figure.

a) Explain why Alex is wrong.

b) Round each number to 1 significant figure.

    0.00314   0.314   3.0014   31,004

8 The diameter of a circle is 12 cm.

    12 cm
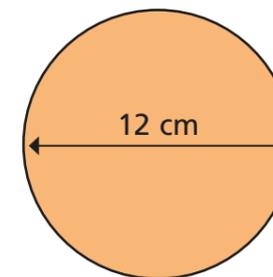
Work out the circumference of the circle and complete the sentences.

a) The circumference of the circle is ☐ to the nearest centimetre.

b) The circumference of the circle is ☐ to 1 significant figure.

9 Given that $x = 4.75$, $y = 2.13$ and $z = 0.0025$, work out the values of the expressions. Give your answers to 1 significant figure.

a) xy

c) $\dfrac{x}{z}$

b) $\dfrac{x}{y}$

d) $\dfrac{z}{x+y}$